AMENDMENTS TO THE CLAIMS

(IN FORMAT COMPLIANT WITH THE REVISED 37 CFR 1.121)

1. (CURRENTLY AMENDED) An apparatus comprising:

a first circuit configured to filter an analog input signal in an analog domain in response to one or more control signals;

a second circuit configured to convert said analog input signal to a first digital signal; and

a third circuit configured to generate (i) a second digital signal and (ii) said one or more control signals in response to said first digital signal, wherein said third circuit is configured to deliberately skew the filter tuning of the analog input signal within the first circuit in response to a signal to noise ratio of said first digital signal ~~to control filter tuning~~ to partially compensate for frequency dependent effects associated with a transmission medium.

2. (CURRENTLY AMENDED) The apparatus according to claim 1, wherein said third circuit includes a first processor configured to generate said one or more control signals ~~is further configured to calibrate said first circuit~~.

3. (ORIGINAL) The apparatus according to claim 1, wherein said third circuit is further configured to provide back-end digital processing control over said first circuit.

4. (ORIGINAL) The apparatus according to claim 3, wherein said first circuit is further configured to provide partial adaptation of said analog input signal in said analog domain.

5. (CURRENTLY AMENDED) The apparatus according to claim 1, wherein said first circuit comprises:

a filter configured to tune said analog input signal; and

a processor configured to calibrate said filter to a center frequency prior to said deliberate skewing.

6. (CURRENTLY AMENDED) The apparatus according to claim 5, wherein said third circuit is further configured to offset said center frequency of said filter.

7. (CURRENTLY AMENDED) The apparatus according to claim 1, wherein:

said first circuit comprises a analog tuned filter;

said second circuit comprises a analog-to-digital conversion circuit; and

said third circuit comprises (a) an equalizer circuit and (b) a digital signal processing device configured to (i) generate said control signals and (ii) adapt a tuning code of said equalizer circuit.

8. (CURRENTLY AMENDED) The apparatus according to claim ~~1~~2, wherein said first circuit comprises:

a current source;

a second processor;

a digitally switched capacitor array circuit;

a rectifier; and

a analog-to-digital converter, wherein said digitally switched capacitor array circuit, said rectifier, said second processor and said analog-to-digital converter are configured to sweep over code values and determine a center value for said filter.

9. (CURRENTLY AMENDED) An apparatus comprising:

means for tuning an analog input signal in an analog domain in response to one or more control signals;

means for converting said analog input signal to a digital signal; and

means for generating (i) a second digital signal and (ii) said one or more control signals in response to said first digital signal, wherein said means for generating is configured to deliberately skew the analog input signal within ~~the~~ said means for tuning ~~to~~ in response to measuring a signal to noise ratio of said first digital signal to partially compensate for frequency dependent effects associated with a transmission medium.

10. (CURRENTLY AMENDED) A method for controlling skewing of an input signal to partially compensate for frequency dependent

effects associated with a transmission medium comprising the steps of:

(A) tuning said input signal in an analog domain in response to one or more control signals;

(B) converting said input signal to a digital signal;

(C) measuring a signal to noise ratio of said digital signal; and

~~(C)~~(D) generating (i) a second digital signal and (ii) said one or more control signals in response to said digital signal to deliberately skew said input signal in response to said signal to noise ratio to control filtering to partially compensate for frequency dependent effects associated with a transmission medium.

11. (ORIGINAL) The method according to claim 10, wherein step (A) further comprises:

providing partial adaption of said input signal in the analog domain.

12. (CURRENTLY AMENDED) The method according to claim 10, wherein step (A) further comprises:

filtering said input signal with a filtering device; and

calibrating said filtering device to a center frequency prior to said skewing.

13. (ORIGINAL) The method according to claim 12, wherein step (A) further comprises:

controlling an offset of said filtering device.

14. (PREVIOUSLY PRESENTED) The method according to claim 10, wherein step (C) further comprises:

generating said second digital signal with an adaptive filter-impulse response filter (FIR) equalizer.

15. (PREVIOUSLY PRESENTED) The method according to claim 14, further comprising the step of:

generating said control signals with a digital signal processing device.

16. (PREVIOUSLY PRESENTED) The method according to claim 15, further comprising the step of:

adapting a tuning code of said filtering and said FIR equalizer with said digital signal processing device to optimize a channel response.

17. (PREVIOUSLY PRESENTED) The method according to claim 16, further comprising the step of:

partially adapting said tuning code of said filtering device in said analog domain.

18. (PREVIOUSLY PRESENTED) The apparatus according to claim 7, wherein said third circuit further comprises:

an adaptive filter-impulse response (FIR) equalizer circuit configured to generate said second digital signal in response to said first digital signal and said one or more control signals.

19. (PREVIOUSLY PRESENTED) The apparatus according to claim 18, wherein said apparatus is configured to reduce the dynamic range needed in said analog-to-digital converter circuit by said deliberate skewing of said analog input signal.

20. (PREVIOUSLY PRESENTED) The apparatus according to claim 19, wherein said deliberate skewing reduces the number of taps needed in said FIR equalizer circuit.